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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,741	09/19/2003	Kazuko Shinozaki	382.1029DIV1	5801
23280 7590 03/27/2007 DAVIDSON, DAVIDSON & KAPPEL, LLC 485 SEVENTH AVENUE, 14TH FLOOR NEW YORK, NY 10018			EXAMINER KRUSE, DAVID H	
			ART UNIT	PAPER NUMBER
			1638	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/27/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/664,741	<b>Applicant(s)</b> SHINOZAKI ET AL.	
	<b>Examiner</b> David H. Kruse	<b>Art Unit</b> 1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 5-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 09/301,217.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

### STATUS OF THE APPLICATION

1. This Office action is in response to the Remarks filed on 11 December 2006.
2. The Examiner acknowledges Applicants' perfection of their claim of foreign priority under 35 USC 119 (a)-(d), the certified copy of the translation of the foreign priority document as been received and made of record.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 102/103***

4. Claims 5-8 remain rejected under 35 U.S.C. § 102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over U.S. Patent 6,417,428 B1, Thomashow *et al* (filed 23 November 1998, claiming priority as a continuation-in-part to U.S. Application 09/017,575 filed on 3 February 1998). This rejection is repeated for the reason of record as set forth in the last Office action mailed 25 September 2006. Applicant's arguments filed 11 December 2006 have been fully considered but they are not persuasive. This rejection has been modified from that of the previous Office action.

Thomashow *et al* disclose a method of altering an environmental stress response of a plant by providing a recombinant molecule comprising a polynucleotide that encodes a polypeptide that has the amino acid sequence of Applicants' SEQ ID NO: 6, at claim 11 (SEQ ID NO: 2). Thomashow *et al* disclose a transgenic plant transformed with polynucleotide operably linked to a promoter that is regulated by changes in environment conditions at claim 8. Thomashow *et al* discloses SEQ ID NO: 1 that encodes SEQ ID NO: 2, SEQ ID NO: 2 being identical to Applicants' SEQ ID NO: 6.

Art Unit: 1638

While SEQ ID NO: 1 of Thomashow *et al* is 94.1% identical to Applicants' SEQ ID NO: 6, it discloses an identical coding region. The differences between SEQ ID NO: 1 of Thomashow *et al* and Applicants' SEQ ID NO: 5 does not appear to lead to a teaching of unexpected results since they are functionally equivalent.

Applicants state that the Thomashow *et al*. reference has a priority date for this disclosure of November 23, 1998. Applicants note that, although the Thomashow *et al*. reference claims priority from U.S. patent applications filed prior to November 23, 1998, the filing date of the subject matter in the Thomashow *et al*. reference that is used to reject claims 5-8 herein has a filing date only of November 23, 1998 (indeed, Applicants have determined that the parent Thomashow *et al*. applications do not contain sufficient disclosure to anticipate or render obvious claims 5-8 herein (Page 3 of the Remarks). Applicants' opinion concerning the sufficiency of the disclosure of the parent Thomashow *et al*. applications is noted, but the Examiner disagrees with the Applicants' opinion. U.S. Application 09/017,575 filed on 3 February 1998, the paragraph spanning pages 28-29, does appear to provide sufficient support under 35 USC § 112, first paragraph, for the claimed subject matter in the '428 Thomashow *et al* patent:

"In each of the above embodiments, expression of the recombinant copy of the regulatory gene may be under the control of the promoter. The promoter may increase the level at which the regulatory gene is expressed, express the regulatory gene without being induced by an environmental stress or express the regulatory gene in response to a different form or degree of environmental stress that would otherwise be needed to induce expression of the regulatory gene. For example, a strong constitutive promoter

Art Unit: 1638

could be used to cause increased levels of COR gene expression in both non-stress and stressed plants which in turn, results in enhanced freezing and dehydration tolerance. A tissue specific promoter could be used to alter COR gene expression in tissues that are highly sensitive to stress (and thereby enhance the stress tolerance of these tissues). A promoter could be used which turns on at a temperature that is warmer than the temperature at which the plant normally exhibits cold tolerance. This would enable the cold tolerance thermostat of a plant to be altered. Similarly, a promoter can be used which turns on at a dehydration condition that is wetter than the dehydration condition at which the plant normally exhibits dehydration tolerance. This would enable the level at which a plant responds to dehydration to be altered. An inducible promoter could be used such that gene expression could be induced by application of an exogenous inducer (e.g., induce COR genes when a frost is imminent). This would enable stress tolerance to be induced externally by a grower whenever desired."

The Examiner has noted Applicants' filing of a certified translation of their foreign priority document JP 292348/1998 filed on 14 October 1998.

### ***Conclusion***

5. No claims are allowed.
6. This Office action is non-final to correct deficiencies in the rejection of record.

Art Unit: 1638

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David H. Kruse, Ph.D. whose telephone number is (571) 272-0799. The examiner can normally be reached on Monday to Friday from 8:00 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached at (571) 272-0975. The central FAX number for official correspondence is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group Receptionist whose telephone number is (571) 272-1600.

DAVID H. KRUSE, PH.D.  
PRIMARY EXAMINER



David H. Kruse, Ph.D.  
21 March 2007

8. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.